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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,156	08/31/2000	Oliver Hecker	AP9472	3844

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 01/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/530,156	Applicant(s) HECKER ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 10, 11, 13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 10, 11, 13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 17 December 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 13 is objected to because of the following informalities: "the momentary value" in the second line from the bottom should be changed to --a momentary value--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 16, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 16. The phrase "the diminishing step is further defined by keeping the excess elevation function constant in time intervals in which the master cylinder pressure is increasing" is indefinite. If the master cylinder pressure is increasing, then the wheel cylinder pressure must be increasing to keep the excess elevation function constant. Since both the master cylinder pressure and the wheel cylinder pressure are increasing, it is unclear how the step may be considered to be a "diminishing" step. Clarification is required.

Re: claim 20. It is unclear to the Examiner what Applicant intends to claim with the use of the phrase "monotonously declining". By definition the term monotonous refers to something unvarying and both the specification and the drawings (figure 2)

teach away from the definition of monotony. Clarification is required otherwise all instances of the phrase should be removed.

Re: claim 21. The phrase "every other input" in the last line of the claim is indefinite. The language reads as if several inputs were previously claimed.

Clarification of the phrase "every other input" is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 10, 11, 13, 17-19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by DE-19501760 (corresponding to U.S. Patent 5727852 to Pueschel et al. for column, line, and figure numbers).

Re: claims 1, 10, 11, 17-19, and 21. DE-19501760 shows in figure 8 a method of operating a brake assist system which comprises a first mode shown from T0 to T1 in which the brake assist system is not actuated, a second mode of operation shown from T1 to T3 and disclosed in col. 9 lines 32-36 in which after recognition of an emergency brake situation (the exceeding of a threshold) a pressure build-up of wheel brakes is generated, and a third mode of operation shown from T3 to the end of the x-axis and disclosed in col. 9 lines 36-40 which is provided for the transition from the second into the first mode of operation, comprising the steps of: monitoring the wheel brake pressure in the third mode of operation via elements 80 and 85 shown in figure 1, determining when the monitored wheel brake pressure is excessively elevated compared to the tandem master cylinder pressure (via the monitoring of the difference between the wheel brake and master brake cylinder pressures by determining when the master brake cylinder pressure drops below a threshold as disclosed in col. 9 lines 35-40, and diminishing the amount of excess elevation in the course of time as shown in figure 8 from T3 to the end of the x- axis.

Re: claim 13. Examiner maintains that Pueschel shows throughout the duration of the third mode as shown in figure 8 the sub step of determining a momentary value of the wheel brake pressure by multiplying a momentary value of a time-dependent excess function with the momentary value of the master cylinder pressure. As discussed in the specification of the instant application $p_{\text{wheel}}(t) = K(t) * p_{\text{mc}}(t)$ or $p_{\text{wheel}}(t) / p_{\text{mc}}(t) = K(t)$. Examiner maintains that the ratio of $p_{\text{wheel}}(t) / p_{\text{mc}}(t)$ is inherently shown throughout the duration of the third mode of operation in Pueschel

since at each time in the graph there is a wheel brake pressure value and a master cylinder pressure value. The time dependent excess function simply decreases in the area where the master cylinder pressure increases. Although the time dependent function or ratio decreases during that particular portion of the third mode of operation, the ratio still exists.

6. Claims 1, 10, 11, 13, 15, and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6170924 to Nakanishi et al.

Re: claims 1, 10, 11, 13, and 17-19, and 21. Nakanishi et al. Nakanishi et al. show in figure 5 a method of operating a brake assist system which comprises a first mode shown from 0 on the x-axis up to the beginning of the section labeled "start pressurizing mode" in which the brake assist system is not actuated as disclosed in col. 14 lines 54-59, a second mode of operation shown in the section labeled "start pressurizing mode" in which after recognition of an emergency brake situation a pressure build-up of wheel brakes is generated as disclosed in col. 14 line 66 – col. 15 line 15, and a third mode of operation shown in the area of the section labeled "assist pressure decreasing mode" to the end of the x-axis which is provided for the transition from the second into the first mode of operation, comprising the steps of: monitoring the wheel brake pressure in the third mode of operation, determining when the monitored wheel brake pressure is excessively elevated compared to the tandem master cylinder pressure, and diminishing the amount of excess elevation by functionally correlating the wheel brake pressure with the monitored master cylinder pressure throughout the

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duration of the third mode of operation as shown in section (7) of figure 5 and as disclosed in col. 16 lines 47-61.

Re: claims 15 and 20. Nakanishi et al. show in section (7) of figure 5 the limitation of the diminishing step being further defined by declining the excess elevation function in time intervals in which the master cylinder pressure is declining and in which the excess elevation function is declining as a function of time.

Allowable Subject Matter

7. Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The third mode of Pueschel and Nakanishi et al. (the mode in which the claimed diminishing step takes place) does not include intervals in which the excess elevation function is kept constant as shown in figure 8 and in figure 5, respectively.

Response to Amendment

8. The finality of the last Office Action has been withdrawn as further consideration of the cited Nakanishi et al. reference resulted in the rejection of claims 15 and 20. Examiner notes that the above rejections are based on the non-entry of the amendment filed 12/26/02.

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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 1/15/03
mmb
January 15, 2003

M. C. Graham
1/16/2003
MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310